Communicating Impacts

A Perfect Forecast
A Kick in the Gut
A Closer Look at What We Communicate

The Event Jan 10-11, 2011

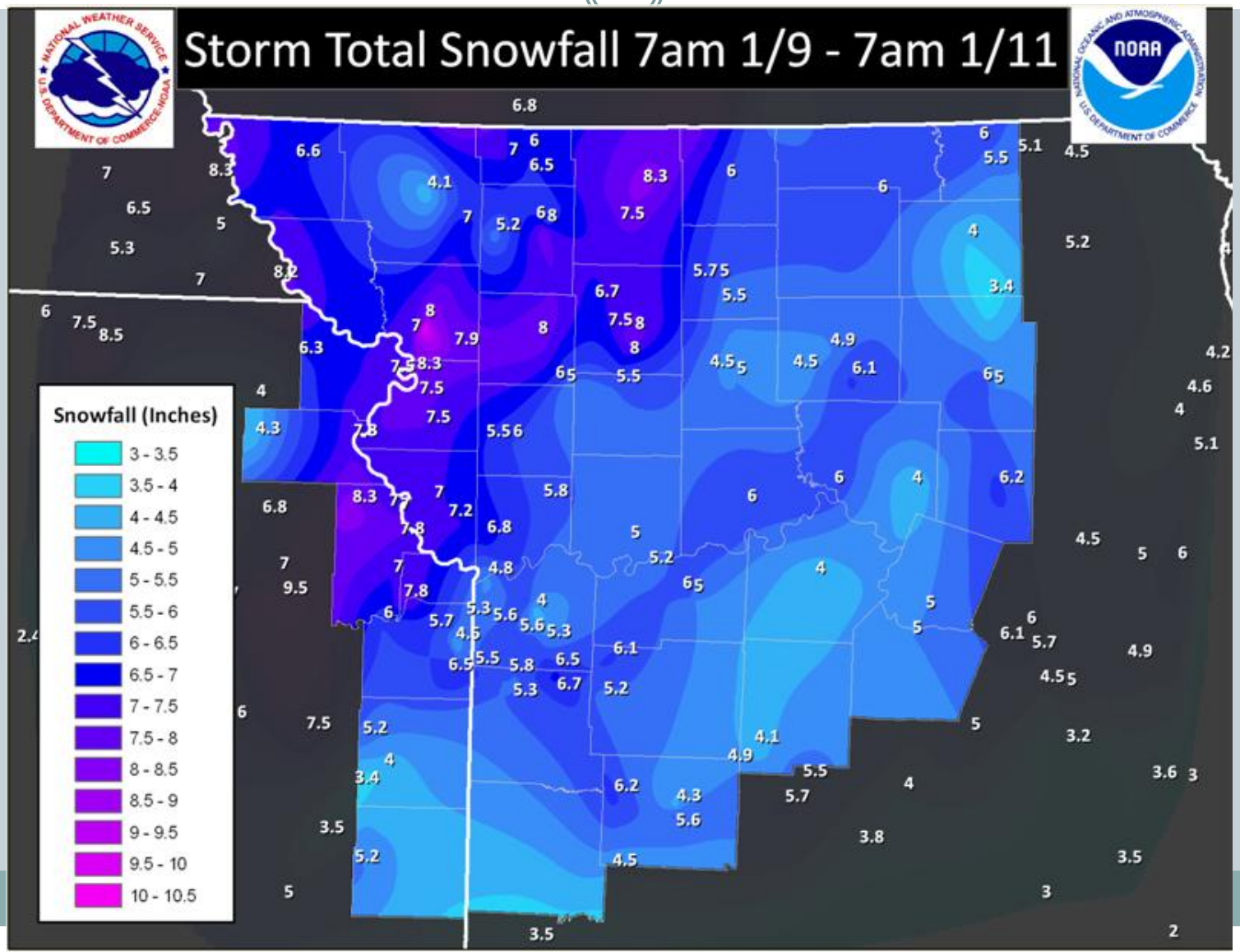
- A prolonged light snowfall event was accurately forecast
- Winter Storm Watch issued ~36 hours before snow
- Winter Weather Advisory issued ~12 hours before snow
- 5-8 inches fell in about 30 hours
- The forecast was nearly perfect 36 hours out
- First snow of the year

From the Winter Weather Advisory:

*TOTAL SNOW ACCUMULATIONS...SNOW ACCUMULATIONS OF 5 TO 8 INCHES ARE LIKELY ACROSS EASTERN KANSAS...NORTHWEST AND WEST CENTRAL MISSOURI. ISOLATED HIGHER AMOUNTS ARE POSSIBLE THROUGH PORTIONS OF NORTHWEST MISSOURI.

*IMPACTS...SNOW TOTALS OF THIS MAGNITUDE... DESPITE FALLING OVER 24 TO 36 HOURS...WILL MAKE DRIVING DIFFICULT AND POTENTIALLY TREACHEROUS.

The Event


Storm Total Snowfall 7am 1/9 - 7am 1/11
Snowfall (Inches)
3 - 3.5
3.5 - 4
4 - 4.5
4.5 - 5
5 - 5.5
5.5 - 6
6 - 6.5
6.5 - 7
7 - 7.5
7.5 - 8
8 - 8.5
8.5 - 9
9 - 9.5
9.5 - 10
10 - 10.5

Impacts

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The Kick in the Gut

- Internal criticism on lack of warning from high ranking NWS officials
- Didn't meet Warning criteria
- "Forecaster Discretion"
- Significant internal "discussions"

NWS Definitions

Advisory: Conditions which cause significant inconvenience and, if caution is not exercised, could lead to situations that threaten life and/or property.

Warning: An event where the conditions pose a threat to life and/or property.

What is dangerous or life threatening?

Is There a "Correct" Response?

It's a Personal Decision

Urgency + Capabilities + Risk Tolerance = Response

Questions That Need Answers

- How big of a roll does the title for a product impact the public's response? (warning vs. advisory)
- How do we forecast the danger posed by the impacts, consistently from event to event and from forecaster to forecaster?
- How do we distinguish between what is truly life threatening, and what could become life threatening if proper precautions are not taken and how do we equip our forecasters to do so in real time?
- How do we handle events such as this when we are only forecasting 2-3 inches of snow just before and during rush hour? The commuter impacts will be the same, but the impacts caused by the overall storm totals will not.
- How do we handle even lighter, but far more intense bursts of snow, especially at critical commute times? e.g. The snow burst of April 2010 on I70 in the western Kansas City metro responsible for an extreme multi-vehicle accident.
- How do we reach a highly mobile population when the message of the traditional media we have invested our communications efforts in is becoming diluted?

So What do We Communicate?